Format No: CP/TF/01

TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID	:	**CP-2019-03-11-53** **Date: 20-12-18**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.
Address	:	Byatarayanapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements of Drains and Constrution of Culverts in Hegadenagara Eastren 1st Main and Both Side Cross Road in Ward No.06
Agency	:	Executive Engineer, KRIDL, #280,59th Cross Road, 17th C Main Road, 3rd Y Block, Rajajinagara, Bangalore-560010.
Customer's Reference	:	BBMP/EE/BTP/WO/44/2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	17-12-18
Sample Type	:	Birla Super 53grade
Reference to BIS codes	:	IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification , IS 4031 (Part 1,2 3,4,5, 6,11):1988 IS 4031 Part 1 DETERMINATION OF FINENESS BY DRY SIEVING, Clause 4.4 IS 4031 Part 2, Determination of Fineness by Blaine Air Permeability Method, Clause 5 IS 4031 Part 3, Determination of Soundness, Clause 5,Clause 6 IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5 IS 4031 Part 5, Determination of Initial & Final Setting Time, Clause 5 IS 4031 Part 11,DETERMINATION OF DENSITY , Clause 6
Date of test	:	18-12-18
Environmental Conditions during test	:	Temperature: 26°C Humidity: 72%

Sl.No.	Physical properties	Results	Requirement as per IS 12269: 2013
1	Fineness by dry sieving (%)	1.76	_
2	Finess by Air permeablity method (m^2/kg,Min)	292.1	225m^2/kg, Min
3	Density (gm/cc)	3.12	_
4	Standard Consistency (%)	28.0%	Not specified
5	Initial Setting time	155 minutes	Not less than 30 minutes
6	Final Setting time	270 minutes	Not more than 600 minutes
7	Soundness (Le Chatelier's Method)	1mm	Not more than 10 mm

Note:

The results pertain to the samples received and tested.

All information furnished by Customer/Representative

Any correction in the report will make this report invalid

This report without prior written approval should not be reproduced or published in full or part.

Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL Pro Sig..... Date..... BANGALORE

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Format No: CP/TF/01

TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID	:	**CP-2019-03-11-53** **Date: 15-01-19**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.
Address	:	Byatarayanapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements of Drains and Constrution of Culverts in Hegadenagara Eastren 1st Main and Both Side Cross Road in Ward No.06 Byatarayanapura Sub Division
Agency	:	Executive Engineer, KRIDL, #280,59th Cross Road, 17th C Main Road, 3rd Y Block, Rajajinagara, Bangalore-560010.
Customer's Reference	:	BBMP/EE/BTP/WO/44/2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	17-12-18
Sample Type	:	Birla Super 53grade
Reference to BIS codes	:	IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification , IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5 IS 4031 Part 6, Determination of Compressive Strength, Clause 6
Date of test	:	18-12-18
Environmental Conditions during test	:	Temperature: 26˚C Humidity: 72%

Compressive Strength

Sl.No.	Physical properties	Results	Requirement as per IS 12269: 2013
1	3 Days	29.5N/mm^2	Not less than 27 N/mm^2
2	7 Days	39.0N/mm^2	Not less than 37 N/mm^2
3	28 Days	55.5N/mm^2	Not less than 53 N/mm^2

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL Pro Sig..... Date..... BANGALORE

Page 1/1
****End of Report****

Format No: CP/TF/01

TEST RESULTS OF STEEL

Lab ID	:	**CP-2019-03-11-53** **Date: 25-12-18**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.
Address	:	Byatarayanapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements of Drains and Constrution of Culverts in Hegadenagara Eastren 1st Main and Both Side Cross Road in Ward No.06 Byatarayanapura Sub Division
Agency	:	Executive Engineer, KRIDL, #280,59th Cross Road, 17th C Main Road, 3rd Y Block, Rajajinagara, Bangalore-560010.
Customer's Reference	:	BBMP/EE/BTP/WO/44/2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	24-12-18
Sample Type	:	Sunvik
Reference to BIS codes	:	IS 1786-2008, IS:1608-2005(RA 2011), IS 1599-2012.
Date of test:	:	24-12-18

Sl.No	Identification of sample	Grade of the sample	Diameter of the steel bar	Weight of the sample	Yield stress	Tensile strength	Elongation	Bend test	Rebend test
			(mm)	(kg/m)	(N/mm2)	(N/mm2)	(%)		
1	Sunvik	Fe500	8	0.396	514	654	20.0%	Satisfactory	Satisfactory
2	Sunvik	Fe500	10	0.618	526	676	20.0%	Satisfactory	Satisfactory
3	Sunvik	Fe500	12	0.889	548	668	20.0%	Satisfactory	Satisfactory

Note:

The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL Pro Sig..... Date..... BANGALORE

End of Report

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE KERB STONE

Lab ID	:	**CP-2019-03-11-53**	**Date: 02-01-19**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.	
Address	:	Byatarayanapura Sub Division, BBMP, Bangalore.	
Project Name	:	Improvements of Drains and Constrution of Culverts in Hegadenagara Eastren 1st Main and Both Side Cross Road in Ward No.06 Byatarayanapura Sub Division	
Agency	:	Executive Engineer, KRIDL, #280,59th Cross Road, 17th C Main Road, 3rd Y Block, Rajajinagara, Bangalore-560010.	
Customer's Reference	:	BBMP/EE/BTP/WO/44/2017-18	
Source of Sample	:	Sample supplied by Agency	
Sample Condition	:	Satisfactory	
Date of Receipt	:	29-12-18	
Sample Type /Size	:	CC Kerb Stone/ 450*165*400mm	
Reference to BIS codes	:	IS: 516 - 1959 Methods of Tests for Strength of Concrete	
Date of test	:	29/12/2018	

Sl. No.	Identification Mark	Diameter of the core	Height of the core	Weight of the core	Area	Failure Load	Core Compressive strength	Corrected Cylinder Compressive strength	Equivalent Cube Compressive strength
		(mm)	(mm)	Kg	(Sq.mm)	(KN)	(N/mm2)	(N/mm2)	(N/mm2)
1	A	100.02	165.53	2.874	7856	142.2	18.1	18.1	22.6
2	B	100.03	165.46	2.783	7857	145.2	18.5	18.5	23.1
3	C	100.03	165.54	2.845	7857	145.3	18.5	18.5	23.1

Note:

The results pertain to the samples received and tested.
All information furnished by the Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL Pro Sig..... Date..... BANGALORE

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL |
GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2019-03-11-53** **Date: 16/01/2019**

Customer : Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.

Address : Byatarayanapura Sub Division, BBMP, Bangalore.

Project Name : Improvements of Drains and Constrution of Culverts in Hegadenagara Eastren 1st Main and Both Side Cross Road in Ward No.06 Byatarayanapura Sub Division

Agency : Executive Engineer, KRIDL, #280,59th Cross Road, 17th C Main Road, 3rd Y Block, Rajajinagara, Bangalore-560010.

Customer's Reference : BBMP/EE/BTP/WO/44/2017-18

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 11-01-19

Customer ID : Drain Bottom Slab Concrete

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 16/01/2019

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Bottom Slab Concrete	M20	09/01/2019	16/01/2019	151.40 X 150.33 X 151.13	22761	**8.619**	420.4	18.5	18.5
2	Drain Bottom Slab Concrete	M20	09/01/2019	16/01/2019	149.13 X 149.40 X 150.10	22279	**8.178**	407.3	18.3	
3	Drain Bottom Slab Concrete	M20	09/01/2019	16/01/2019	150.51 X 151.01 X 151.56	22729	**8.711**	423.8	18.6	

Note:

The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL PRO BANGALORE Sig..... Date.....

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2019-03-11-53** **Date: 06/02/2019**

Customer : Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.

Address : Byatarayanapura Sub Division, BBMP, Bangalore.

Project Name : Improvements of Drains and Constrution of Culverts in Hegadenagara Eastren 1st Main and Both Side Cross Road in Ward No.06 Byatarayanapura Sub Division

Agency : Executive Engineer, KRIDL, #280,59th Cross Road, 17th C Main Road, 3rd Y Block, Rajajinagara, Bangalore-560010.

Customer's Reference : BBMP/EE/BTP/WO/44/2017-18

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 11-01-2019

Customer ID : Drain Bottom Slab Concrete

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 06/02/2019

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Bottom Slab Concrete	M20	09/01/2019	06/02/2019	150.02 X 150.57 X 149.22	22589	**8.805**	529.3	23.4	23.1
2	Drain Bottom Slab Concrete	M20	09/01/2019	06/02/2019	150.27 X 149.85 X 151.82	22517	**8.082**	500.0	22.2	
3	Drain Bottom Slab Concrete	M20	09/01/2019	06/02/2019	150.80 X 151.02 X 149.03	22773	**8.620**	535.5	23.5	

Note:

The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL PRO Sig..... Date..... BANGALORE

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2019-03-11-53** **Date: 16/01/2019**

Customer : Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.

Address : Byatarayanapura Sub Division, BBMP, Bangalore.

Project Name : Improvements of Drains and Constrution of Culverts in Hegadenagara Eastren 1st Main and Both Side Cross Road in Ward No.06 Byatarayanapura Sub Division

Agency : Executive Engineer, KRIDL, #280,59th Cross Road, 17th C Main Road, 3rd Y Block, Rajajinagara, Bangalore-560010.

Customer's Reference : BBMP/EE/BTP/WO/44/2017-18

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 11-01-2019

Customer ID : Drain Bottom Slab Concrete

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 16/01/2019

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Bottom Slab Concrete	M20	09/01/2019	16/01/2019	151.26 X 150.93 X 149.85	22829	**8.619**	430.2	18.8	18.9
2	Drain Bottom Slab Concrete	M20	09/01/2019	16/01/2019	149.41 X 151.06 X 151.41	22570	**8.178**	422.9	18.7	
3	Drain Bottom Slab Concrete	M20	09/01/2019	16/01/2019	149.10 X 151.20 X 150.16	22545	**8.711**	427.8	19.0	

Note:

The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL Pro Sig..... Date..... BANGALORE

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2019-03-11-53** **Date: 06/02/2019**

Customer : Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.

Address : Byatarayanapura Sub Division, BBMP, Bangalore.

Project Name : Improvements of Drains and Constrution of Culverts in Hegadenagara Eastren 1st Main and Both Side Cross Road in Ward No.06 Byatarayanapura Sub Division

Agency : Executive Engineer, KRIDL, #280,59th Cross Road, 17th C Main Road, 3rd Y Block, Rajajinagara, Bangalore-560010.

Customer's Reference : BBMP/EE/BTP/WO/44/2017-18

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 11-01-2019

Customer ID : Drain Bottom Slab Concrete

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 06/02/2019

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Bottom Slab Concrete	M20	09/01/2019	06/02/2019	150.08 X 149.19 X 151.94	22389	**8.805**	533.8	23.8	23.2
2	Drain Bottom Slab Concrete	M20	09/01/2019	06/02/2019	149.83 X 150.80 X 151.57	22594	**8.082**	509.4	22.5	
3	Drain Bottom Slab Concrete	M20	09/01/2019	06/02/2019	149.64 X 151.64 X 151.37	22691	**8.620**	527.5	23.2	

Note:

The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-24

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL PRO BANGALORE Sig..... Date.....

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2019-03-11-53** **Date: 25/01/2019**

Customer : Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.

Address : Byatarayanapura Sub Division, BBMP, Bangalore.

Project Name : Improvements of Drains and Constrution of Culverts in Hegadenagara Eastren 1st Main and Both Side Cross Road in Ward No.06 Byatarayanapura Sub Division

Agency : Executive Engineer, KRIDL, #280,59th Cross Road, 17th C Main Road, 3rd Y Block, Rajajinagara, Bangalore-560010.

Customer's Reference : BBMP/EE/BTP/WO/44/2017-18

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 21-01-2019

Customer ID : Drain Side Wall Concrete

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 25/01/2019

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Side Wall Concrete	M20	18/01/2019	25/01/2019	151.02 X 150.54 X 149.65	22734	**8.619**	411.0	18.1	18.3
2	Drain Side Wall Concrete	M20	18/01/2019	25/01/2019	151.05 X 149.35 X 150.01	22559	**8.178**	414.9	18.4	
3	Drain Side Wall Concrete	M20	18/01/2019	25/01/2019	150.69 X 151.18 X 151.24	22781	**8.711**	422.5	18.5	

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-26

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL PRO BANGALORE Sig..... Date.....

Page 1/1
****End of Report****

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2019-03-11-53** **Date: 15/02/2019**

Customer : Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.

Address : Byatarayanapura Sub Division, BBMP, Bangalore.

Project Name : Improvements of Drains and Constrution of Culverts in Hegadenagara Eastren 1st Main and Both Side Cross Road in Ward No.06 Byatarayanapura Sub Division

Agency : Executive Engineer, KRIDL, #280,59th Cross Road, 17th C Main Road, 3rd Y Block, Rajajinagara, Bangalore-560010.

Customer's Reference : BBMP/EE/BTP/WO/44/2017-18

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 21-01-2019

Customer ID : Drain Side Wall Concrete

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 15/02/2019

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Side Wall Concrete	M20	18/01/2019	15/02/2019	149.09 X 150.48 X 149.58	22434	**8.805**	535.9	23.9	23.3
2	Drain Side Wall Concrete	M20	18/01/2019	15/02/2019	150.94 X 151.30 X 149.86	22837	**8.082**	512.7	22.5	
3	Drain Side Wall Concrete	M20	18/01/2019	15/02/2019	150.45 X 151.77 X 149.41	22834	**8.620**	537.5	23.5	

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL Pro BANGALORE Sig..... Date.....

Page 1/1
****End of Report****

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2019-03-11-53** **Date: 25/01/2019**

Customer : Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.

Address : Byatarayanapura Sub Division, BBMP, Bangalore.

Project Name : Improvements of Drains and Constrution of Culverts in Hegadenagara Eastren 1st Main and Both Side Cross Road in Ward No.06 Byatarayanapura Sub Division

Agency : Executive Engineer, KRIDL, #280,59th Cross Road, 17th C Main Road, 3rd Y Block, Rajajinagara, Bangalore-560010.

Customer's Reference : BBMP/EE/BTP/WO/44/2017-18

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 21-01-2019

Customer ID : Drain Side Wall Concrete

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 25/01/2019

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Side Wall Concrete	M20	18/01/2019	25/01/2019	150.40 X 150.30 X 150.67	22606	**8.619**	429.4	19.0	18.9
2	Drain Side Wall Concrete	M20	18/01/2019	25/01/2019	149.32 X 150.00 X 151.86	22398	**8.178**	422.8	18.9	
3	Drain Side Wall Concrete	M20	18/01/2019	25/01/2019	151.51 X 149.73 X 150.89	22686	**8.711**	425.9	18.8	

Note:

The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL PRO Sig..... Date..... BANGALORE

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2019-03-11-53** **Date: 15/02/2019**

Customer : Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.

Address : Byatarayanapura Sub Division, BBMP, Bangalore.

Project Name : Improvements of Drains and Constrution of Culverts in Hegadenagara Eastren 1st Main and Both Side Cross Road in Ward No.06 Byatarayanapura Sub Division

Agency : Executive Engineer, KRIDL, #280,59th Cross Road, 17th C Main Road, 3rd Y Block, Rajajinagara, Bangalore-560010.

Customer's Reference : BBMP/EE/BTP/WO/44/2017-18

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 21-01-2019

Customer ID : Drain Side Wall Concrete

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 15/02/2019

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Side Wall Concrete	M20	18/01/2019	15/02/2019	151.41 X 149.50 X 150.16	22636	**8.805**	521.9	23.1	23.0
2	Drain Side Wall Concrete	M20	18/01/2019	15/02/2019	149.91 X 149.29 X 150.60	22381	**8.082**	513.4	22.9	
3	Drain Side Wall Concrete	M20	18/01/2019	15/02/2019	150.11 X 151.33 X 150.72	22716	**8.620**	523.5	23.0	

Note:

The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-24

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL Pro Sig..... Date..... BANGALORE

Page 1/1
****End of Report****

Format No: CP/TF/01

TEST REPORT ON COARSE AGGREGATES

Lab ID	:	**CP-2019-03-11-53** **Date: 20-12-18**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.
Address	:	Byatarayanapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements of Drains and Constrution of Culverts in Hegadenagara Eastren 1st Main and Both Side Cross Road in Ward
Agency	:	Executive Engineer, KRIDL, #280,59th Cross Road, 17th C Main Road, 3rd Y Block, Rajajinagara, Bangalore-560010.
Customer's Reference	:	BBMP/EE/BTP/WO/44/2017-18
Source of Sample	:	Sample supplied by Agency
Sample condition	:	Satisfactory
Date of Receipt	:	17-12-18
Sample Type	:	40mm down size coarse aggregate
Reference to BIS codes	:	IS: 383:2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1,3,4) RA2011 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption IS 2386 Part 4: Mechanical Properties
Date of test	:	17-12-18

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 40MM DOWN COARSE AGGREGATE:

Total weight taken : 15000 grams

Sample No.	Sieve No.	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Required as per IS 383:2016
1	40 mm	0	0	0	100	100
2	20 mm	165	165	1.1	98.9	90-100
3	10 mm	2287	2452	16.3	83.7	25-55
4	4.75 mm	2087	4539	30.3	69.7	0-10
5	Pan	461	5000	33.3	66.7	_
6	Pan	233	5233	34.9	65	---

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

CIVIL PRO Sig..... Date..... BANGALORE

Format No: CP/TF/01

TEST REPORT ON COARSE AGGREGATES

Lab ID : **CP-2019-03-11-53** **Date: 20-12-18**

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS:383-2016
1	Flakiness Index(%)	12.1	Combined Flakiness & Elongation Index Shall not Exceed 40% for Uncrushed & Crushed Aggregate
2	Elongation Index(%)	9.1	
3	Specific Gravity	2.63	_
4	Bulk Density(Loose) (Kg/l)	1.48	_
5	Bulk Density(Compacted) (Kg/l)	1.52	_
6	Water Absorption(%)	0.18	_

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL Pro Sig..... Date..... BANGALORE

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Format No: CP/TF/01

TEST REPORT ON COARSE AGGREGATES

Lab ID	:	**CP-2019-03-11-53** **Date: 19-12-18**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.
Address	:	Byatarayanapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements of Drains and Constrution of Culverts in Hegadenagara Eastren 1st Main and Both Side Cross Road in Ward No.06 Byatarayanapura Sub Division
Agency	:	Executive Engineer, KRIDL, #280,59th Cross Road, 17th C Main Road, 3rd Y Block, Rajajinagara, Bangalore-560010.
Customer Reference	:	BBMP/EE/BTP/WO/44/2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	17-12-18
Sample Type/ Size	:	20mm down size coarse aggregate
Reference to BIS codes	:	IS: 383:2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1,3,4) RA2011 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption IS 2386 Part 4: Mechanical Properties
Date of test	:	17-12-18

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 20MM DOWN COARSE AGGREGATE:

Total weight taken : 5000 grams

Sample No.	Sieve No.	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Required as per IS 383:2016
1	40 mm	0	0	0	100	100
2	20 mm	165	165	3.3	96.7	90-100
3	10 mm	2287	2452	49.0	51.0	25-55
4	4.75 mm	2087	4539	90.8	9.2	0-10
5	Pan	461	5000	100	0	_

CIVIL PRO Sig..... Date..... BANGALORE

Format No: CP/TF/01

TEST REPORT ON COARSE AGGREGATES

Lab ID : **CP-2019-03-11-53** **Date: 19-12-18**

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS:383-2016
1	Flakiness Index(%)	11.3	Combined Flakiness & Elongation Index Shall not Exceed 40% for Uncrushed & Crushed Aggregate
2	Elongation Index(%)	10.7	
3	Specific Gravity	2.61	_
4	Bulk Density(Loose) (Kg/l)	1.51	_
5	Bulk Density(Compacted) (Kg/l)	1.55	_
6	Water Absorption(%)	0.21	_
7	Aggregate crushing Value(%)	23.8	Max 30% for Aggregates to be used in concrete for wearing Surface, In case Aggregate Crushing Value Exceeds 30% then the test for ten percent fines should be conducted for Aggregates to be used in concrete other than for wearing Surface.
8	Aggregate Impact Value(%)	22.1	30% for Aggregates to be used in concrete for wearing Surface, 45% for Aggregates to be used in concrete other than for wearing Surface.

Note:

The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signature
Quality Manager

CIVIL Pro Sig..... Date..... BANGALORE

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Format No: CP/TF/01

TEST REPORT OF FINE AGGREGATE

Lab ID : **CP-2019-03-11-53** **Date: 19-12-18**

Customer : Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.

Address : Byatarayanapura Sub Division, BBMP, Bangalore.

Project Name : Improvements of Drains and Constrution of Culverts in Hegadenagara Eastren 1st Main and Both Side Cross Road in Ward No.06 Byatarayanapura Sub Division

Agency : Executive Engineer, KRIDL, #280,59th Cross Road, 17th C Main Road, 3rd Y Block, Rajajinagara, Bangalore-560010.

Customer's Reference : BBMP/EE/BTP/WO/44/2017-18

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 17-12-18

Sample Type : Fine Aggregate

Reference to BIS codes : IS 383 : 2016 (Specification for Coarse and fine Aggregates)
IS: 2386 :1963(Part - 1, 3) RA2012
IS 2386 Part 1: Particle Size and Shape
IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption

Date of test : 17-12-18

Total weight taken : 1000 grams

Sl.no	Sieve Size	Weight Retained (gms)	Cumulative Weight Retained (gms)	% Cumulative Weight Retained	% Passing	Requirement as per IS 383:2016			
						Grading Zone I	Grading Zone II	Grading Zone III	Grading Zone IV
1	10 mm	0	0	0.0	100.0	100	100	100	100
2	4.75 mm	12	12	1.2	98.8	90-100	90-100	90-100	95-100
3	2.36 mm	165	177	17.7	82.3	60-95	75-100	85-100	95-100
4	1.18 mm	227	404	40.4	59.6	30-70	55-90	75-100	90-100
5	600 micron	109	513	51.3	48.7	15-34	35-59	60-79	80-100
6	300 micron	288	801	80.1	19.9	5-20	8-30	12-40	15-50
7	150 micron	142	943	94.3	5.7	0-10	0-10	0-10	0-15
8	Pan	57	1000	100.0	0.0	---	---	---	---

Result :The tested Sample Conforms to Grading Zone II

CIVIL Pro Sig..... Date..... BANGALORE

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

TEST REPORT OF FINE AGGREGATE

Lab ID : **CP-2019-03-11-53** **Date: 19-12-18**

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS 383:2016
1	Water Absorption(%)	1.87	–
2	Specific Gravity	2.54	–
3	Material finer than 75 micron(%)	4.8	Uncrushed fine Aggregate Max 3%, Crushed Fine aggregate Max 15%, Mixed Fine aggregate Max 12%, Manufactured Fine aggregate Max 10%

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL Pro Sig..... Date..... BANGALORE

****End of Report****